UNITED STATES PATENT AND TRADEMARK OFFICE
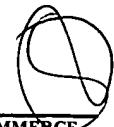
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,794	05/04/2001	Susie J. Wee	10014738-1	8836

7590 03/23/2005	**EXAMINER**
HEWLETT-PACKARD COMPANY	HOFFMAN, BRANDON S

ART UNIT	PAPER NUMBER
2136	

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/849,794	WEE ET AL.
	Examiner	Art Unit	
	Brandon Hoffman	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 February 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-49* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1.   Claims 1-49 are pending in this office action, claims 1, 13, and 21 are amended.

2.   Applicant's arguments, filed February 18, 2005, have been fully considered but they are not persuasive.

Rejections

3.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Claim Rejections - 35 USC § 103

4.   Claims 1-8, 12-28, and 32-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. (U.S. Patent No. 6,810,131) in view of Perlman et al. (U.S. Patent No. 6,055,316).

Regarding claims 1, 13, and 21, Nakagawa et al. teaches a secure and scalable encoding method/system for encoding data, said secure and scalable encoding system comprised of:

- A segmenter, said segmenter adapted to receive data and segment said data into corresponding regions (fig. 15, ref. num 1100 and 1200);

- A scalable encoder coupled to said segmenter, said scalable encoder adapted to encode **data for** at least one of said regions into scalable data (fig. 19, encoding side);

- An encrypter, said encrypter adapted to encrypt said scalable data to produce encrypted scalable data (fig. 15, ref. num 1108); and

- A packetizer coupled to said progressive encrypter, said packetizer adapted to packetize said progressively encrypted scalable data (fig. 19, ref. num 1302).

Nakagawa et al. does not teach the encrypter is a progressive encrypter.

Perlman et al. teaches the encrypter is a progressive encrypter (fig. 2 and col. 6, lines 26-60).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a progressive encrypter, as taught by Perlman et al., to the method/system of Nakagawa et al. It would have been obvious for such modifications because content providers want to be able to provide at least some content to everyone, even if they are not going to pay for the full version. This way, the content provider can send low quality "previews" to a larger viewing audience (see col. 1, line 66 through col. 2, line 12 of Nakagawa et al.).

Regarding claims 2, 14, and 22, the combination of Nakagawa et al./Perlman et

al. teaches wherein said data is comprised of video frame data (see col. 16, lines 28-30

of Nakagawa et al.).

Regarding claims 3, 15, 16, and 23, the combination of Nakagawa et al./Perlman

et al. teaches further comprising a video prediction unit coupled to said segmenter, said

video prediction unit adapted to generate prediction error video data and provide said

prediction error data to said segmenter (see col. 17, lines 61-66 of Nakagawa et al.).

Regarding claims 4, 17, and 24, the combination of Nakagawa et al./Perlman et

al. teaches wherein said scalable encoder is further adapted to encode said at least one

of said regions into said scalable data and into header data wherein said header data

provides information corresponding to said scalable data (see col. 16, lines 17-27 of

Nakagawa et al.).

Regarding claims 5, 18, and 25, the combination of Nakagawa et al./Perlman et

al. teaches wherein said progressive encrypter is further adapted to encrypt said header

data to provide encrypted header data (see col. 16, lines 17-27 of Nakagawa et al.).

Regarding claims 6, 19, and 26, the combination of Nakagawa et al./Perlman et

al. teaches wherein said packetizer is further adapted to packetize said progressively

encrypted scalable data and said header data (see col. 17, lines 17-22 of Nakagawa et al.).

Regarding claims 7, 20, and 27, the combination of Nakagawa et al./Perlman et al. teaches wherein said packetizer is further adapted to packetize said progressively encrypted scalable data and said encrypted header data (see col. 17, lines 17-22 of Nakagawa et al.).

Regarding claims 8 and 28, the combination of Nakagawa et al./Perlman et al. teaches wherein said data is selected from the group consisting of: video data, audio data, image data, graphic data, and web page data (see col. 2, lines 42-45 of Nakagawa et al.).

Regarding claims 12 and 32, the combination of Nakagawa et al./Perlman et al. teaches steps b) through e) for only a portion of said data received at step a) (see fig. 15, ref. num 6000 of Nakagawa et al., only a base layer has to be processed for non-paying viewers).

Regarding claims 33, 39, and 44, Nakagawa et al. teaches a decoding system for decoding data encoded using a secure and scalable encoding system, said decoding system comprised of:

- A decrypter, said decrypter adapted to receive a packet containing encrypted and

  scalably encoded data and decrypt said packet to provide scalably encoded

  regions (fig. 17, ref. num 2001);

- A decoder coupled to said decrypter, said decoder adapted to decode said

  scalably encoded regions to provide decoded regions (fig. 19, decoding side);

  and

- An assembler coupled to said decoder, said assembler adapted to assemble said

  decoded regions to provide data (fig. 17, ref. num 2302).

Nakagawa et al. does not teach decrypting progressively encrypted data.

Perlman et al. teaches the decrypting progressively encrypted data (fig. 3 and

col. 6, lines 26-60).

It would have been obvious to one of ordinary skill in the art, at the time the

invention was made, to combine a decrypter, as taught by Perlman et al., to the

method/system of Nakagawa et al. It would have been obvious for such modifications

because content providers want to be able to provide at least some content to

everyone, even if they are not going to pay for the full version. This way, the content

provider can send low quality "previews" to a larger viewing audience (see col. 1, line 66

through col. 2, line 12 of Nakagawa et al.).

Regarding claims 34, 40, and 45, the combination of Nakagawa et al./Perlman et al. teaches said decrypter is further adapted to receive a packet containing said progressively encrypted and scalably encoded data and also including unencrypted header data wherein said unencrypted header data provides information corresponding to said scalably encoded data (see fig. 4B of Perlman et al.).

Regarding claims 35, 36, 41, 46, and 47, the combination of Nakagawa et al./Perlman et al. teaches wherein said decrypter is further adapted to receive a packet containing said progressively encrypted and scalably encoded data and also including encrypted header data wherein said encrypted header data provides information corresponding to said scalably encoded data, said decrypter further adapted to decrypt said encrypted header (see fig. 4B of Perlman et al.).

Regarding claims 37, 42, and 48, the combination of Nakagawa et al./Perlman et al. teaches wherein said assembler is further adapted to assemble said decoded regions to provide video frame data (see col. 20, lines 53-59 of Nakagawa et al.).

Regarding claims 38, 43, and 49, the combination of Nakagawa et al./Perlman et al. teaches wherein said assembler is further adapted to assemble said decoded regions to provide prediction error video data for use by a video prediction unit (see col. 20, lines 14-19 of Nakagawa et al.).

Claims 9-11 and 29-31 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Nakagawa et al. (USPN '883) as modified by Perlman et al. (USPN

'316) and further in view of Van der Auwera et al. (U.S. Patent No. 6,532,265).

Regarding claims 9-11 and 29-31, the combination of Nakagawa et al./Perlman

et al. teaches all the limitations of claims 1 and 21, respectively, above. However,

Nakagawa et al./Perlman et al. does not teach segmenting said data into corresponding

rectangular regions, non-rectangular regions, and overlapping regions.

Van der Auwera et al. teaches segmenting said data into corresponding

rectangular regions, non-rectangular regions, and overlapping regions (col. 2, lines 20-

28).

It would have been obvious to one of ordinary skill in the art, at the time the

invention was made, to combine segmenting the data into rectangular, non-rectangular,

and overlapping regions, as taught by Van der Auwera et al., to the method/system of

Nakagawa et al./Perlman et al. It would have been obvious for such modifications

because the segments being divided into different regions allows smaller segmenting

values for easier encoding and the realization of a real-time system.

Response to Arguments

5.   Applicant argues:

a.   The cited references do not teach the combination of progressively

encrypting scalably encoded data, nor would the combination of said references

have been obvious (page 13-15).

b.   The dependent claims are allowable based on their dependency upon the

independent claims (page 15 and 16).

Regarding argument (a), examiner disagrees with applicant. Firstly, examiner

would like to point out the fact that both prior art references, Nakagawa et al. and

Perlman et al., are classified in analogous arts, i.e, class 380, Video Cryptography. This

provides some motivational support for combining two references in like arts.

During prosecution of the case, including interviews over the phone, applicant

and examiner have agreed that the prior art references (along with other references)

taught the individual pieces of the currently claimed application. That is, Nakagawa et

al. taught segmenting data, scalably encoding the data, and packetizing the data.

Perlman et al. was cited for progressive encryption. The discrepancy came from the

motivation to combine the two references. Applicant contested that no one in the art

has ever put these two well-known methods (scalable coding and progressive

encryption) together to come up with a new method of secure scalably encoded data.

Prior to this action, it was a matter of one party persuading the other party that the

combination was either reasonable or unreasonable. Applicant requested a single

reference that put both concepts together, namely, someone who taught progressively

encrypting data that has previously been scalably encoded. After submitting this idea to

the Patent Offices' Electronic Search Facility, a document was discovered that did just

that.

Al-Jabri et al. teaches both scalable coding of data and further progressively

encrypting the scalably coded data. Scalable encoding is shown in Al-Jabri et al. on

pages 505 and 506, section 2. Progressive encryption is shown in Al-Jabri et al. on

pages 507 and 508, section 3.1. To this extent, the pending claims are rejected by the

combination of Nakagawa et al. in view of Perlman et al., and further shown to be an

obvious combination by Al-Jabri et al.

Regarding argument (b), examiner disagrees with applicant. Based on the

arguments set forth by the examiner for argument (a), the dependent claims stand as

rejected.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. *A. Kh. Al-Jabri and a. Kh. al-Asmari, "Secure Progressive*

Transmission of Compressed Images", IEEE Trans. on Consumer Electronics, Vol. 42,

No.3, pp. 504-512, August 1996 is being cited to further support the motivation for

combining Nakagawa et al. and Perlman et al. Al-Jabri et al. teaches scalably coded

data that is further secured by several encryption methods—one of which is progressive

encryption.

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Brandon Hoffman whose telephone number is 571-272-

3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BH

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100